

CLAIM AMENDMENTS

1. (Currently amended) A method of decontaminating soil and ground water containing organic contaminants and divalent metal compounds, which comprises the steps of:

treating such soils and ground water with an effective amount an aqueous solution having a pH of at least 7 which ~~containing~~ contains a peroxide and a water-soluble aminopolycarboxylate- chelating agent for a time sufficient to have the water-soluble aminopolycarboxylate- chelating agent chelate at least one of the divalent metals of the divalent metal compounds present in the soils and ground water;

reacting the chelated metals with the peroxide to catalytically convert the peroxide to an oxidizing agent; and then,

contacting the organic contaminants in the soil and ground water with the oxidizing agent to oxidize the organic contaminants to environmentally safe, non-toxic compounds.

2.(Original) The method of Claim 1, where the divalent metal compound is an iron compound.

3. (Cancelled)

4. (Currently amended) The method of Claim 1, where the water-soluble aminopolycarboxylate-chelating agent is an alkylenepolyamine polyarboxylate chelating agent.

5. (Currently amended) The method of Claim 1, where the water-soluble aminopolycarboxylate- chelating agent is present in the aqueous solution in an amount from about 0.03 to about 1.5 Moles/Liter and the peroxide in an amount ranging from about 0.6 to about 4.5 Moles/Liter.

6. (Currently amended) The method of Claim 4, where the water-soluble alkylenepolyamine polyarboxylate chelating agent is a blend of alkyleneamine polycarboxylate chelates.

7. (Currently amended) The method of Claim 4, where the water-soluble alkylenepolyamine polyarboxylate chelating agent is from the group consisting of ethyl [[i]]enediaminetetraacetic acid, diethylenetriaminepentaacetic acid, and ~~ethylenedianvne~~ ethylenediamine -di(o-hydroxyphenylacetic acid).

8.(Currently amended) The method of Claim 7, where the water-soluble aminopolycarboxylate- chelating agent is a blend of two or more of ethyl[[i]]enediaminetetraacetic acid, diethylenetriaminepentaacetic acid, and ~~ethylenedianvne~~ ethylenediamine-di(o-hydroxyphenylacetic acid).

9. (Canceled)

10.(Currently amended) The method of Claim [[8]] 1, where the pH of the aqueous solution of the peroxide and [[a]] the water-soluble aminopolycarboxylate- chelating agent is between 7.0 and 9.5.

11. (Currently amended) The method of Claim [[8]] 1, where the aqueous solution of the peroxide and [[a]] the water-soluble aminopolycarboxylate-chelating agent contains an alkaline buffering agent.

12. (Currently amended) The method of Claim [[10,]] 11, where the alkaline buffering agent is an alkaline phosphate salt and urea phosphate.

13. (Currently amended) The method of Claim 1, where the peroxide is a metal peroxide, ~~or mixtures thereof~~

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14. (New) An improved method of decontaminating soil and ground waters containing organic contaminants and divalent metals which comprises treating such soils and ground waters with a peroxide and chelated divalent metal compound which converts the peroxide to an oxidizing agent which oxidizes the contaminants to environmentally safe, non-toxic compounds: the improvement which comprises treating such soils with a peroxide and a chelating agent capable of chelating at least one of the divalent metals contained in the soils and ground waters and then chelating at least one of the divalent metals contained in the soils and ground waters to convert the peroxide to an oxidizing agent.

15. (New) The improved method of claim 14 where the chelating agent is a water soluble aminopolycarboxylate chelating agent.
